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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,608	05/20/2004	Kelly Scott Carpenter	AUS920040177US1	6729
35525	7590	01/14/2008		
IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380			EXAMINER MURRAY, DANIEL C	
			ART UNIT 2143	PAPER NUMBER
			MAIL DATE 01/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

AK

Office Action Summary

Application No.

10/849,608

Applicant(s)

CARPENTER ET AL.

Examiner

Daniel Murray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20MAY2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20MAY2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 502 and 512.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. **Claims 4, and 8-19** are objected to because of the following informalities:

Claim 4 appears to claim dependence on the incorrect claim. For the purposes of examination **claim 4** is interpreted as depending on **claim 2**.

Claims 8-12 appear to claim dependence on the incorrect independent claim. For the purposes of examination **claims 8, 9, 11, and 12** are interpreted as depending on **claim 7** and **claim 10** is interpreted as depending on **claim 8**.

Claims 13-19 appear to claim dependence on the incorrect independent claim. For the purposes of examination **claims 14, 15, 17, and 19** are interpreted as depending on **claim 13**, **claim 16** is interpreted as depending on **claim 14**, and **claim 19** is interpreted as depending on **claim 19**.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. **Claims 8-12** are rejected by virtue of their dependency on **claim 7**.

Claim 7 states: A computer program product in a computer readable medium for managing enforcement of a set of policies on a plurality of computer systems attached to a network, said computer program product comprising: first instructions for defining, for each type of element in said plurality of computer systems, attributes that are of interest in the operation of said computer

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systems; second instructions for assigning, for each element in said plurality of computer systems, values to each of said attributes associated with said element; third instructions for defining a policy concerning a first set of said elements in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of values; and fourth instructions for performing at least one operation, chosen from a group of set operations, on said first set of values to determine if said first set of values meets said policy.

Applicant's specification states: It is important to note that while the present invention has been described in the context of a fully functioning data processing system, those of ordinary skill in the art will appreciate that the processes of the present invention are capable of being distributed in the form of a computer readable medium of instructions and a variety of forms and that the present invention applies equally regardless of the particular type of signal bearing media actually used to carry out the distribution. Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and **transmission-type media, such as digital and analog communications links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions. The computer readable media may take the form of coded formats that are decoded for actual use in a particular data processing system.**

Applicant attempts to claim non-statutory subject matter by grouping software and signals under the term computer readable media. Applicant fails to claim a proper computer readable medium and thus fails to fall within in a statutory category and is thus, per se, is considered software/a signal. Examiner suggests applicant include a statement referencing only the storage media as a computer readable medium.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-2, 4-8, 10-14, and 16-19** are rejected under 35 U.S.C. 102(b) as being anticipated by **Thebaut et al. (US Patent # 5,889,953)**.

a) Consider **claims 1 and 7**, Thebaut et al. clearly show and disclose, a method and computer program product for managing a plurality of computer systems attached to a network (abstract, column 1 lines 12-15, column 2 lines 5-12), said method comprising the computer implement steps of: for each type of element in said plurality of computer systems, defining attributes that are of interest in the operation of said computer systems (column 2 lines 13-21, column 3 lines 25-34, column 5 lines 29-41); for each element in said plurality of computer systems, assigning values to each of said attributes associated with said element (column 3 lines 23-24, column 11 lines 33-48); defining a policy concerning a first set of said elements in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of desired values (abstract, column 2 lines 13-25, column 3 lines 18-24 lines 45-67); and performing at least one operation, chosen from a group of set operations, on said first set of values to determine if said first set of values meets said policy (abstract, column 2 lines 13-25, column 4 lines 9-34, column 6 lines 49-51, column 7 lines 15-16 lines 28-48).

b) Consider **claim 13**, Thebaut et al. clearly show and disclose, a computer system comprising (column 16 lines 54-65): a processor having a connection to a network (column 16 lines 54-65); a keyboard connected to input information to said processor (column 4 lines 51-52, column

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5 lines 7-13, column 7 lines 43-44); an output device for providing reporting capabilities (column 3 lines 53-60, column 4 lines 51-52, column 7 lines 43-44); a set of instructions stored in memory and connected to be executed by said processor (column 16 lines 54-65), said set of instructions comprising: first instructions for defining, for each type of element in a plurality of computer systems that are connected to be managed by said computer system, attributes that are of interest in the operation of said computer systems (column 2 lines 13-21, column 3 lines 25-34, column 5 lines 29-41); second instructions for assigning, for each element in said plurality of computer systems, values to each of said attributes associated with said element (column 3 lines 23-24, column 11 lines 33-48); third instructions for receiving a policy concerning a first set of said elements defined in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of values (abstract, column 2 lines 13-25, column 3 lines 18-24 lines 45-67); and fourth instructions for performing at least one operation, chosen from a group of set operations, on said first set of values to determine if said first set of values meets said policy (abstract, column 2 lines 13-25, column 4 lines 9-34, column 6 lines 49-51, column 7 lines 15-16 lines 28-48).

c) Consider **claims 2, 8, and 14**, and as applied to **claims 1, 7, and 13 above**, Thebaut et al. clearly show and disclose, the method, computer program product, and computer system of claims 1, 7 and 13, further comprising providing a report on compliance to said policy by said first set of elements (column 4 lines 51-52, column 6 lines 54-61, column 7 lines 5-16 lines 28-48).

d) Consider **claims 4, 10, and 16** and as applied to **claims 2, 8, and 14 above**, Thebaut et al. clearly show and disclose, the method, computer program product, and computer system of claims 2, 8, and 14 wherein said reporting step comprises reporting elements that did not comply with said policy (column 6 lines 5-16 lines 49-51 lines 54-61, column 7 lines 28-48).

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e) Consider **claims 5, 11, and 17** and **as applied to claims 1, 7, and 13 above**, Thebaut et al. clearly show and disclose, the method, computer program product, and computer system of claims 1, 7, and 13 wherein said defining step uses the relationships of "belongs to" and "does not belong to" (column 2 lines 18-19, column 6 lines 3-14, column 7 lines 5-16).

f) Consider **claims 6, 12, and 18** and **as applied to claims 1, 7, and 13 above**, Thebaut et al. clearly show and disclose, the method, computer program product, and computer system of claims 1, 7, and 13 wherein said defining step uses multiple relationships joined by the operations "and", "or", and "not" (column 6 lines 24-43).

g) Consider **claim 19**, and **as applied to claim 16 above**, Thebaut et al. clearly show and disclose, the computer system of claim 16, wherein said report is provided on said output device (column 3 lines 53-60, column 4 lines 51-52, column 7 lines 43-44).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. **Claims 3, 9, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Thebaut et al. (US Patent # 5,889,953)**.

a) Consider **claims 3, 9, and 15** and as **applied to claims 1, 7, and 13 above**, Thebaut et al. clearly show and disclose, the method, computer program product, and computer system of claims 1, 7, and 13. However, Thebaut et al. does not specifically disclose that said performing step performs an operation chosen from the group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal.

Nonetheless, the Examiner takes Official Notice of the fact that it is notoriously well known in the art that the operations filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal are operations used in Set theory concerning collections of objects, and the elements of, and membership in, such collections.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use set operations, as known in the art, in the method taught by Thebaut et al. for the purpose of performing operations concerning the grouping of network devices.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Carter et al. (US Patent # US 7,177,922 B1) disclose: "Policy Enforcement Using the Semantic Characterization of Traffic"
- Dev et al. (US Patent # 5,295,244) disclose: "Network Management System Using Interconnected Hierarchies to Represent Different Network Dimension in Multiple Display Views"
- Dev et al. (US Patent # 5,504,921) disclose: "Network Management System Using Model-Based Intelligence"
- Lindsey (US Patent Publication # US 2003/0200296 A1) discloses: "Apparatus and Method for Modeling, and Storing within a Database, Services on a Telecommunications Network"
- Lovy et al. (US Patent # US 7,197,561 B1) disclose: "Method and Apparatus for Maintaining the Status of Objects in Computer Networks using Virtual State Machines"
- Mayo et al. (US Patent # 5,751,965) disclose: "Network Connection Status Monitor and Display"
- Thompson (US Patent Publication # US 2004/0210661 A1) discloses: "Systems and Methods of Profiling, Matching and Optimizing Performance of Large Networks of Individuals"
- Wood (US Patent # 6,108,702) discloses: "Method and Apparatus for Determining Accurate Topology Features of a Network"
- Wood (US Patent # US 6,405,248 B1) discloses: "Method and Apparatus for Determining Accurate Topology Features of a Network"

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Murray whose telephone number is (571)-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571)-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DCM

A handwritten signature in black ink, appearing to be "D. Dahl", written over the printed text "DCM".A handwritten signature in black ink, appearing to be "K. Z.", written in a cursive style.